

Application No. 10/737,272

REMARKS

In an Office Action dated March 21, 2006 (hereinafter "Office Action") claims 1-29 and 33 were rejected. In particular, claim 1-8 were rejected as anticipated by Smith et al (U.S. Patent 5,613,861). Claims 15-24 and 33 were rejected as anticipated by Beroz et al (U.S. Patent 6,361,959). Claims 25-29 were rejected as anticipated by DiStefano et al (U.S. Patent 5,859,472). In response, Applicant respectfully submits the preceding amendments and the following remarks.

Applicant has added to claim 1 the limitation that the release portion includes two curves, a first curve in a plane approximately perpendicular to the lift line and the second curve not in the plane approximately perpendicular to the lift line. The Smith reference does not show a second curve not in a plane approximately perpendicular to the lift line.

In the Office Action, Applicant's position that the disc shown in Figure 5A is the anchor portion of the spring was again deemed unpersuasive. Because an agreement was not reached over what is the anchor region, Applicant has added various descriptions to the second curve in new claims 34-38 that Applicant respectfully submits differentiate the circle surrounding Beroz's disc anchor and Applicant's curves. Independent claim 33 has also been amended to describe at least two in-plane curves curved in different directions which are substantially different than Beroz's disc around the anchor which the Office Action maintains as an in-plane curve.

Claims 15 and 26 have been amended to include a spring tip with a direction of maximal curvature that lying in a plane approximately perpendicular to the lift line. As previously pointed out Beroz (and DiStefano) cannot disclose this limitation because all of the Beroz (and DiStefano) spring tips (element 38 in the Beroz drawings) are flat. By definition, without a curvature to the spring tips, there can be no direction of maximal curvature at the spring tip. Thus neither Beroz nor DiStefano suggest or anticipate positioning an in-plane curve between the release line and the curved spring tip.

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Various dependent claims 3, 9-12 were rejected under 35 USC 103 by combining the references of Smith, DiStefano and Beroz. Applicant respectfully submits that it is improper to combine Smith with Beroz and DiStefano because no suggestion to combine Smith with Beroz and DiStefano has been provided. Applicant respectfully submits that because of the totally different fabrication methods, it would not be obvious to combine Smith with Beroz and DiStefano. In particular, the method of formation of Beroz does not lend itself to forming curved spring tips. As described in the prior Office Action, Beroz describes forming an interconnect by bonding a first end of an interconnect to a first substrate, and a second end of the interconnect to a second substrate and then moving the substrates apart to form the structures illustrated in Beroz. Beroz does not use stressed metal methods described in Applicant's specification and in Smith. Instead, Beroz applies an external force. Using both the stressed metal of Smith to generate curves and the external force of Beroz (and DiStefano) would be redundant and create extra fabricating work.

A second reason it would not be obvious to combine the DiStefano and Smith is that using stressed metal to form the springs which produces the stress gradients and the curved spring tip also produces cupping on either side of the aperture. Such cupping is undesirable. Thus unless a curved spring tip is particularly needed, it would not be obvious to use stressed metal to create a spring with such a large aperture as it would create a cupping problem.

Applicant further respectfully submits that a *prima facie* case of obviousness has not been made with respect to various dependent claims. For example, claims 8 and 18 describe using a photoresist overhang to prevent uplifting of portions of the electrical interconnect element. Claim 14 claims plating the element to increase stiffness. Applicant is unable to find any reference to plating in the cited section of Smith (Col 1, lines 7-12) nor does it teach anything about an overhang in the photoresist to prevent uplifting. Applicant is also unclear how Figure 7 of Beroz relates to the claimed limitations as Beroz does not use stressed metal and thus does not need anything to prevent.

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Applicant respectfully submits that a *prima facie* case of obviousness also has not been made with respect to claim 3. Applicant respectfully submits that the absence of any curves does not render *prima facie* obvious a claim that claims curves, the sum of which subtends an angle of 0 degrees.

All pending claims depend on independent claims 1, 15, 26 or 33. Thus, in view of the preceding amendments and remarks, Applicant respectfully submits that the claim as amended are allowable over the cited prior art reference, and allowance at Examiner's earliest convenience is hereby respectfully requested.

No additional fee is believed to be required for this amendment. However, the undersigned Xerox Corporation attorney (or agent) hereby authorizes the charging of any necessary fees, other than the issue fee, to Xerox Corporation Deposit Account No. 24-0025. This also constitutes a request for any needed extension of time and authorization to charge all fees therefor to Xerox Corporation Deposit Account No. 24-0025.

In the event that the Examiner believes a teleconference would facilitate prosecution, Applicant respectfully requests that Examiner contact the undersigned.

Respectfully submitted,



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